

## MPE Calculation / RF Exposure

Product: DOG TRAINING DEVICE

Applicant: Dogtra Co., Ltd.

Model: 1900S

Address: #715-2(146BL-3L) Gojan-dong, Namdong-gu, Incheon, South Korea

FCC ID: SWN-TD30UT

This is a portable device as it is a hand-held transmitter paired with a receiver collar which is used in a dog training application. The SAR exclusion from KDB 447498 Appendix C being applied.

### **Formula from Section 4.3.1 of KDB 447498 D01**

For frequencies below 100 MHz, the following may be considered for SAR test exclusion (also illustrated in Appendix C):

- 1) For test separation distances  $> 50$  mm and  $< 200$  mm, the power threshold at the corresponding test separation distance at 100 MHz in step b) is multiplied by  $[1 + \log(100/f(\text{MHz}))]$
- 2) For test separation distances  $\leq 50$  mm, the power threshold determined by the equation in c) 1) for 50 mm and 100 MHz is multiplied by  $\frac{1}{2}$

**Exclusion Threshold = 7.5**

### **Calculation**

Step 1: at 100 MHz and 50 mm, power threshold =  $(7.5 * 50) / \text{sqrt}(0.1) = 1185$  mW

Step 2a):  $1185 + (50 - 50) \times (27.195/150) = 1185$  mW

Step 3a):  $1185 \times [1 + \log(100/27.195)] = 1855.13$  mW

Step 3b):  $1855.13/2 = 927.56$  mW

Frequency	Conducted Peak Output power	Conducted Peak Output contained tolerance	RF Exposure Limit
27.195 MHz	429.5 mW	680.77 mW	927.56 mW

**Conclusion PER the exclusion requirement of KDB 447498 a SAR measurement is not necessary.**

Note: Measured maximum output power : 26.33 dBm / Tune-up tolerance : 26 dBm  $\pm$  2 dB